

NEWSLETTER

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INSIDE THIS ISSUE:

President's Column	1 - 2
Highlight Articles from the Clinical Trials Journal	3
Membership Spotlight	3 - 5
SCT Announcements	6 - 10
A Dose of Clinical Trials Education and History Scientific Topics in Clinical Trials: Randomization and Intention-to-Treat (ITT A Historical Clinical	11 - 12 () 12 - 13
Trial: Diabetes Prevention Program (DPP) DSMB Stories: Coronary Drug Project (CDP)	13
ASCO/AACR Workshop on Methods in Clinical Cancer Research	14
SCT Sponsors	15
Information About SCT	16
Future SCT Meetings	17

SCT President's Column

Dear Friends and Colleagues,

Clinical trials provide the most robust and reliable information regarding the benefits and harms of interventions for treating and preventing human disease. They are the primary vehicle for evaluating and comparing treatment and prevention strategies in nearly all medical conditions. They are the most important tool for guiding decisions about human health.



Scott R. Evans, PhD Society for Clinical Trials President 2024-2025

Research funded, overseen, and evaluated by the National Institutes of Health (NIH), Food and Drug Administration (FDA), Centers for Disease Control (CDC), and Veteran's Administration (VA) are critical for the nations' health, a foundation for clinical research. NIH-funded trials operate with unparalleled objectivity; pursuing answers to important questions for informing medical practice, including evaluation of the comparative effectiveness of competing interventions, thus informing medical care in ways that development-oriented industry funded clinical trials cannot. Unfortunately, there has been a decreasing trend in funding for large practice-defining trials. More generally, we have entered an era of concerning decline in support for clinical research and our clinical research institutions in the United States.

No investment pays greater dividends to the American people than high quality health and biomedical research. Curtailing such investments jeopardizes the health of American citizens and humankind, limits access to lifesaving care, stalls development of innovative and more effective approaches to medical care, threatens America's role as the long-standing leader in health research, and hinders the critical role in training the next generation of leading biomedical scientists.

In acknowledgement of these facts, Janet Wittes and I wrote a letter to select members of the Congress and Senate that lead appropriations committees, as

well as Acting Director of the NIH, and the Secretary of the Department of Health and Human Services (DHHS). The letter urged support for these important US institutions and the importance of the contributions of the people who work in them. We asked past presidents of the SCT who are US citizens to sign on to the letter, with all but one agreeing. This letter was not an official act of the SCT but a collection of SCT presidents coming together to support government colleagues and institutions that provide the clinical research infrastructure in the United States. The letters were delivered at the beginning of March 2025.

In this spirit, one theme of this newsletter is the contributions of our NIH colleagues and institutions.

In this issue, the Member Spotlight features two of our NIH colleagues, Dr. Dean Follmann and Dr. Yves Rosenberg. Dr. Dean Follmann is the Chief of the Biostatistics Research Branch at the National Institute of Allergy and Infectious Diseases (NIAID) of the NIH. In 2020, he was appointed to the US Government Coronavirus Vaccine Development Leadership Group, becoming the statistical lead for Operation Warp Speed Vaccine Trials, a federal effort that supported multiple COVID-19 vaccine candidates to speed development. He developed trial designs and analyses to address the challenge of evaluating vaccine effects after the placebo group is vaccinated. Dr. Follmann received a personal letter of appreciation from President Joe Biden for contributions to the fight against COVID-19 in December of 2021. In 2015, Dr. Follmann received the DHHS Secretary's Award for Distinguished Service as a member of the Ebola Clinical Research Response Team. Dr. Follmann became a fellow of the SCT in 2024.

Dr. Yves Rosenberg is the Chief Medical Research Officer (CMRO) at the Division of Cardiovascular Sciences (DCVS) within the National Heart, Lung, and Blood Institute (NHLBI) at the NIH. He provides oversight for the clinical trials portfolio and contributes to the development of NHLBI-wide clinical research policies and processes with the NHLBI Office of Clinical Research. His resume reads as a list of many of the most important and historical clinical trials in cardiovascular disease within the past couple of decades. This includes major influential trials such as ISCHEMIA, ACCORD, AVID, MAGIC, TAILOR PCT, PACE, MERIT-HF, and Post AFFIRM, CABANA, PEACE, TACT, IMMEDIATE, COAG, CABG. Yves became a fellow of the SCT in 2017.

Finally, I would like to acknowledge the passing of my friend and colleague, Mary Foulkes. Mary worked at the NIH, first in the National Institute of Neurological Disorders and Stroke (NINDS), and later at the Division of AIDS (DAIDS) in the National Institute of Allergy and Infectious Diseases (NIAID), where she helped to plan and coordinate AIDS clinical trials in the early days of the AIDS epidemic and eventually took on the role of Biostatistics Branch Chief at NIAID. Later, she served as the Director of the Office of Biostatistics and Epidemiology in the FDA's Center for Biologics Evaluation and Research (CBER). Later in her career, she joined the Biostatistics Center at the George Washington University as a Research Professor, where she worked until her retirement in 2019. Mary received the Founders Award from the American Statistical Association (ASA) in 1995 and was elected an ASA Fellow that same year. She became a Fellow of the Society for Clinical Trials in 2009.

In the "A Dose of Clinical Trials Education and History" section of this newsletter issue, I discuss randomization, the intention-to-treat principle, and the impact of the NIH-funded Diabetes Prevention Project (DPP). In "A DSMB Story," I highlight the NIH-funded Coronary Drug Project (CDP), one of the first trials to have a DSMB. Looking forward to the annual SCT meeting in May, I highlight Vancouver's role in the movie and television industry and the restaurant "Dark Table."





By Colin Begg, Editor

April 2025 Issue Highlights

The **April** issue of *Clinical Trials* contains several articles relating to the conduct of clinical trials. **Matthew Toerpor** and colleagues describe how embedding randomization into the electronic medical record system facilitated the conduct of two large randomized trials in emergency care. In a commentary, **Mark Pletcher** supports the premise that innovations like this can lead to improvements in health care delivery and outcomes. **Shrikant Bangdiwala** and **Salim Yusuf** propose a new pragmatic data monitoring approach for randomized trials. **Walter Nelson** and colleagues show how to use machine learning to identify center-level irregularities during the conduct of multi-center clinical trials. Using the example of a trial in dementia **Sudeshmna Paul** and colleagues examine the impact of major unplanned study design changes on the interpretation of the clinical trial findings. Finally,

Helen Pluess-Hall and colleagues lament, based on a literature review, the fact that pediatric clinical trials frequently terminate early and discuss the negative implications of this for study participants.

Follow the brand new "<u>Society for</u> <u>Clinical Trials" company page on</u> <u>LinkedIn</u> to keep up to date with the latest from the journal!



Membership Spotlight



Dean Follmann PhD Director, Office of Biostatistics Research National Institute of Allergy and Infectious Diseases

What is your current position?

I'm the Director of the Office of Biostatistics Research at NIAID. I founded the Biostatistics Group at NIAID in 2002 which recently changed from Branch to Office.

What are your past positions?

I worked at the National Heart Lung and Blood Institute from 1988 to 2002 and at a think tank for the Navy, the Center for Naval Analyses, from 1985 to 1988.

What is your training?

I went to Elgin Community College from 1975 to 1977 where I received an Associates in Arts Degree, then Northern Illinois University where I received a Bachelors in Mathematics in 1980 and a Masters in Statistics in 1981. I finished with a PhD in statistics from Carnegie Mellon University in 1985.

What are your specific research interests or your specific interests within clinical trials?

Whatever arises. I've been fortunate to work in a variety of trials over the years including prevention and treatment trials for cardiovascular and infectious diseases. My major interest now is in vaccine trials. I'm fascinated by how vaccines induce the immune system to fight against disease and this helps me better craft statistical methods. Since Covid-19 hit, I've worked on methods to see how vaccine induced antibodies modulate protection. This includes new study designs that measure antibodies at the onset of disease, rather than after the last shot. Lately I've been obsessed about how to interpret hazard ratios causally. Most people think this is impossible and a waste of time; I'm wondering if they're right.

What are your hobbies (outside of work)?

I like to bike, hike, and kayak. I used to practice Tae Kwon Do, but dropped it during the pandemic...

What role(s) did/do you play in SCT?

I've been on the trial of the year committee. I also like to talk up the society and the importance of trials when given the chance. I think clinical trials are the best medical invention ever. To me it's so obvious and settled, but not everyone thinks that way. In civics class I remember hearing that eternal vigilance is the price of liberty. I think that sentiment encapsulates our charge as society members to promote and preserve the principles of trials. There are lots of little reasons why trials need promotion; they're hard, they're costly, there are clever new methods which are touted to get the job done, and these arguments are made by smart energetic people. We shouldn't just watch it all happen.

What is your favorite part about being involved in clinical trials?

I feel the trials I've worked on have asked important questions, but the people I've worked with are by far my favorite part. I've had the privilege to work with people who are smart, dedicated, and nice. I love the back and forth with all contributing to make something none could do alone. I felt this deeply during the Covid-19 pandemic.

• Your least favorite?

Probably CDISC. It's like their sole intent was to develop a system that would specifically madden Dean Follmann. PARAMCD?

What do you enjoy most about attending the SCT Annual Meeting? And/or:

I quite like socializing with people I know and people I meet. I also like going to talks about things I don't do and know nothing about. That can be hit or miss, but I want to be exposed to fresh ideas.

How has being in SCT benefited you?

That's a great question. I think, frankly, I used to take clinical trials for granted. Like that was settled and I could focus on doing fun statistical research. I was aware of the society and attended some meetings like I did for other societies and other meetings, no big deal. Other, older people were champions for trials, good for them. It's dawned on me that I've become one of those older people now and there's an associated role. I think being in the society made this clearer to me and that I now have a responsibility to advocate for clinical trials.

What advice would you have for junior researchers just starting out in the field of clinical trials?

Ask yourself if working in this field really engages you. And if not see if you can find some aspect that does.

What is one strategy you have used to maintain your sanity during the recent months/years?

I worked a lot but it felt very fulfilling. I biked and kayaked to take breaks. I especially liked kayaking early in the morning on the Potomac to see the sun come up.



Yves Rosenberg, MD, MPH

Chief Medical Research Officer, Division of Cardiovascular Sciences National Heart, Lung and Blood Institute

What is your current position?

I am currently the Chief Medical Research Officer (or CMRO) for the Division of Cardiovascular Sciences at the National Heart, Lung and Blood Institute (NHLBI), that is part of the U.S. National Institutes of Health. As the CMRO I have broad oversight and management responsibilities for the clinical trials portfolio supported by our Division, whether these trials are supported through grants, cooperative agreements, contracts, or any other type of funding mechanism. I also provide leadership on the development of NHLBI-wide clinical research policies and processes and strategic directions of our cardiovascular clinical research portfolio.

What are your past positions?

My most recent position was as the Chief of the Atherothrombosis and Coronary Artery Disease Branch in the Cardiovascular Sciences Division of the NHLBI, where I supervised staff administering a broad portfolio of basic, translational, clinical, and population-based research. During that time, and in previous positions at the NHLBI, I acted as the Program Official or Program Scientist responsible for the management and oversight of large multi-site clinical trials supported by my Division.

What is your training?

I attended medical school in Lyon, France, my hometown. I obtained a board certification in Public Health (similar to Preventive medicine in the United States) with a focus on epidemiology and clinical pharmacology. After arriving at NIH as a "postdoc," I obtained a Master of Public Health from Johns Hopkins University.

What are your specific research interests or your specific interests within clinical trials?

From my first days as a medical resident, I have been fascinated by how preventative and therapeutic options are evaluated and applied particularly as they relate to cardiovascular diseases. Therefore, I dedicated my career to studying the design and conduct of large, multi-site clinical trials. Over the last few years, I have been especially interested in the design and implementation issues related to large pragmatic, effectiveness trials including those testing different therapeutic strategies (e.g., medical versus device or surgery). Having been involved during the COVID-19 pandemic in platform trials using master protocols I am now particularly interested in how we can better use these methods to more efficiently test interventions in the cardiovascular field.

What are your hobbies (outside of work)?

I love going for walks or hikes with my wife, my now adult children and our standard poodle Sammy! I enjoy travelling and going on summer or winter vacations to the Alps region where I grew up, especially skiing in winter (as with many children in that region I took up skiing almost at the same time as I learned to walk). Otherwise, my wife and I enjoy watching Masterpiece mysteries and other British dramas.

What role(s) did/do you play in SCT?

I became a member of the SCT around the time I arrived in the United States in the early nineties upon the advice of my then mentor in France, Pr. Jean-Pierre Boissel who was one of the founders of the Society. I have participated in most meetings since, organized and chaired workshops, and been a member of most subcommittees. I am currently a member of the Program Committee and Fellows Committee. I was also privileged to serve on the Board.

What is your favorite part about being involved in clinical trials?

I love the multidisciplinary nature of the work, interacting and learning from my colleagues from other disciplines, such as statisticians, program and project managers, ethicists and many other health professionals and most importantly research participants! I also love advising investigators from all around the country and the world to help them submit the best possible clinical trials applications to get funding from the NIH.

• Your least favorite?

There is really nothing I don't like about my work in clinical trials, but the increased complexity and cost associated with the implementation of large clinical trials in different health care systems and settings, both in the United States and around the world can be frustrating. This sometimes unnecessary complexity impairs our ability to efficiently conduct clinical trials that will ethically answer key public health questions. I welcome and encourage initiatives to streamline clinical trials, such as risk-based monitoring, and revised GCP guidelines.

How has being in SCT benefited you?

What I enjoy the most in attending the annual SCT meetings and in being part of the SCT community is meeting colleagues from various scientific fields who are all involved in other parts of the clinical trials enterprise, working in various medical areas, and learning from their shared experience.

What advice would you have for junior researchers just starting out in the field of clinical trials?

Keep your enthusiasm, focus on the mission and set goals designed to ultimately improve public health in your field: whatever small part you are playing into it will end up making a difference! And always keep trying to learn from others, especially those who have a different cultural and professional background from yourself.

What is one strategy you have used to maintain your sanity during the recent months/years?

Apart from what I have stated above about my professional attitude, I have tried to focus on spending time with my wonderful family, enjoying nature, and getting exercise (need to do more of this 😇 !)



Registration for SCT's 2025 Annual Meeting is open!

Please join us! This year's theme is:

"Shaping the Future: The Right Questions, Robust Answers"

May 18 - 21, 2025

Hyatt Regency Vancouver

Vancouver, British Columbia, Canada

Our Annual Meeting brings together the clinical trials community from academia, the pharmaceutical and device industries, government agencies, medical groups, and clinical research entities.



Click here to learn more about SCT's 2025 Annual Meeting and to register.

Highlights include:

- Cutting-edge pre-conference workshops by leaders in the field
- Invited sessions, targeted sessions, contributed sessions, and poster presentations
- Curtis Meinert Keynote Lecture delivered by Dr. Arun Sanyal
- Founders Lecture
- Annual Thomas C. Chalmers Student Scholarship competition
- Sylvan Green Award presentation by Dr. Ryan Berry
- Exhibitors showcasing publications, technology innovators, and other resources for clinical trials
- Discussions of timely issues and research experiences among colleagues in the field
- Presentation of the SCT Class of 2025 Fellows
- Presentation of the 2024 David Sackett Trial of the Year Award
- Roundtable small group discussions on a wide range of topics
- Networking with your colleagues

We're looking forward to seeing you this May in Vancouver.

REGISTER TODAY

Need to contact us? Registration: <u>registration@sctweb.org</u> General Inquiries: <u>contact@sctweb.org</u>

Reserve your seat today in SCT's Pre-Conference Workshops & Roundtable Discussions!

If you have not yet registered for the upcoming SCT Annual Meeting, May 18-21 in Vancouver, please register soon and plan to attend one or more of the great pre-conference workshops taking place on Sunday, May 18, and a Monday roundtable discussion session that will take place over the lunch hour. Just indicate the workshop(s) and roundtable discussion session you'd like to attend when completing your online meeting registration.

If you have already registered for the meeting and want to add a pre-conference workshop to your registration, please:

- 1. complete the <u>registration form</u> and indicate the specific workshop you'd like to attend, and
- 2. submit the form with your payment information to registration@sctweb.org for processing.

For a full listing of the pre-conference workshops, <u>click here</u>.

If you're interested in sitting at a particular roundtable, please email <u>registration@sctweb.org</u> with the title of the roundtable you'd like to register for and we will add it to your registration record.

<u>Click here</u> to view the list of available roundtable topics, moderators, and descriptions.

SCT's 2025 Founders Keynote Lecture Announcement

SCT is pleased to announce the 2025 Founders Keynote Lecture titled **"DMCs/DSMBs: Ongoing Challenges, Potential Solutions"** will be presented on Tuesday, May 20 at SCT's 2025 Annual Meeting in Vancouver.

As the mission of Data Monitoring Committees (DMCs) or Data and Safety Monitoring Boards (DSMBs) is to safeguard the interests of study participants and to enhance the integrity and credibility of clinical trials, this session presented by a panel of experienced CMD/DSMB experts - will address current challenges being faced by these committees: Our panel presenters for this session include:



David L. DeMets, PhD University of Wisconsin-Madison



Susan S. Ellenberg, PhD University of Pennsylvania



Thomas R. Fleming, PhD University of Washington



Frank W. Rockhold, PhD, ScM University of Washington



Janet Wittes, PhD Wittes LLC



SCT is pleased to announce the 2025 Curtis Meinert Keynote Lecture titled **"The Future of Metabolic Medicine and Clinical Trials: A Patient-Centric Paradigm"** will be presented on Monday, May 19 at SCT's 2025 Annual Meeting by **Arun J. Sanyal, MD** Virginia Commonwealth University

Presentation Summary: Noncommunicable diseases (NCDs) are the leading cause of death accounting for 70% of all deaths worldwide. Many of the conditions considered to be NCDs have common roots in disordered metabolism which drives an inflammatory-fibrosis-aging biology across multiple organs. The liver plays a central role in metabolism and modulator of the metabolic health of other organs. Despite having common biological roots and pathways, current care pathways are siloed and based on individual organ based approaches. Drug development and clinical trials are also siloed and based on one organ disease at a time. These approaches are time and resource inefficient, and offer an incomplete reflection of the effects on patients. Treatment effects may be broader, affecting multiple organs, resulting in greater overall benefits to the patient than organ-specific evaluations will uncover. Most importantly doctors ideally treat patients, not their organ. Clinical trials need to be designed to appropriately inform this patient-centric rather than organ-centric clinical decision-making. The keynote will focus on integrated patient-centric care and its marriage with clinical trial paradigms to inform patient-centric care.

SCT's 2025 Class of Fellows

SCT is pleased to announce the 2025 Class of Fellows:



Dikla Blumberg, PhD Rho, Inc. Durham, North Carolina



Ted Lystig, PhD BridgeBio Huntsville, Utah



Jonathan Cook, PhD, BSc University of Oxford Oxford, United Kingdom



Larisa Tereshchenko, MD, PhD Cleveland Clinic Cleveland, Ohio



Emily V. Dressler, PhD Wake Forest University Winston Salem, North Carolina



Wenle Zhao, PhD Medical University of South Carolina Charleston, South Carolina

Page 8

We hope you'll be with us in Vancouver in May to see these individuals receive their awards during SCT's 2025 Annual Meeting!

Announcing SCT's Newly Elected President-Elect and BOD Members!

SCT is pleased to announce that **Alexia lasonos, PhD**, was recently elected as President-elect of the Society by the voting members.

In addition, **Dikla Blumberg**, **PhD**, **Sameer Parpia**, **PhD**, **MS**, **Sarah Gaussoin**, **MS**, **Gustavo Jimenez-Maggiora**, **PhD**, **MBA**, **and Charity Patterson**, **PhD** were elected to serve as the Society's new Board Members.

These individuals will be officially installed into their new positions at the Tuesday, May 20th Business Session, scheduled during the SCT Annual Meeting, May 18-21 in Vancouver.



Alexia Iasonos, PhD, MS Memorial Sloan Kettering Cancer Center New York New York



Dikla Blumberg, PhD Rho, Inc. Durham, North Carolina



Sameer Parpia, PhD, MS McMaster University Hamilton, Ontario, Canada



Sarah Gaussoin, MS Wake Forest School of Medicine Winston Salem, North Carolina



Gustavo Jimenez-Maggiora, PhD, MBA University of Southern California San Diego, California



Charity Patterson, PhD University of Pittsburgh Pittsburgh, Pennsylvania

Recordings of the SCT webinars are now available for both SCT members and non-members!

The recordings of the SCT sponsored public educational webinars are now available for both SCT members and nonmembers!

<u>Click here</u> to view the recordings of the recent webinars, including March 18th's **It Takes a Village: Multi-Disciplinary Approach to Designing Stellar Data Collection Forms** which focused on the form development process from the perspective of a collection of stakeholders.

We look forward to seeing you in our future webinars!

Volume 36, #3

The Brand New SCT LinkedIn Company Page Is Now Public!

SCT LinkedIn Page Now Public!

The Society for Clinical Trials has launched a new **public** LinkedIn page! Previously, SCT's presence on LinkedIn was limited to a private members-only group, but now everyone can follow our page to stay informed about clinical trial methodologies, upcoming events, educational opportunities, and more.



Society For Clinical Trials

The SCT is a scientific, educational, and charitable organization established to advance human health. Professional Organizations · Arlington Heights, Illinois · 104 followers · 2-10 employees

We encourage all members of the previous private group to transition to this new page, as we will be closing the old group in a few months. Follow and share our page to stay connected and help expand awareness of clinical trials.





Follow us here:

[https://www.linkedin.com/company/society-forclinical-trials/]

The SCT 2025 Member Volunteer Portal is open! Submit your interest by June 13, 2025.

Our volunteers are the heart of the Society, and your skills, talents, and perspectives are needed to enable us to continue to build a strong, energetic, and dynamic organization.

If you are interested in serving on a committee, we encourage you to share your interest through the Member Volunteer Portal.

Committee Chairs, Co-Chairs, and Past Chairs serve one-year terms. Committee Members have the ability to serve up to five years.

To submit your interest, please follow the steps below:

- Go to http://www.sctweb.org/.
- Log into the Members-Only Area with your username and password.
- Navigate to the right of your screen and click on Member Volunteer Portal.
- Follow the prompts in the portal and please be sure to indicate which committee(s) you're interested in serving on.
- Please download the Conflicts of Interest document, disclose your financial and other relationships in accordance with the SCT Conflict of Interest (COI) Policy, and upload the completed form through the portal.

Please note the volunteer portal will close on Friday, June 13th (11:59 pm CT).

If you need any assistance with your SCT login, please email <u>membership@sctweb.org</u>.

If you have any general questions, please email <u>contact@sctweb.org</u>.

Thank you for your continued support of the Society for Clinical Trials!

A Dose of Clinical Trials Education and History

By Dr. Scott R. Evans

Scientific Topics in Clinical Trials: Randomization and Intention-to-Treat (ITT)

In the late 1980s, Robert Fulgham wrote a book entitled "All I Really Needed to Know I Learned in Kindergarten." Some things he learned were: share everything, play fair, clean up your own mess, don't hit people, don't take things that aren't yours, say you're sorry when you hurt someone, hold hands, and stick together. Imagine what the world would be if adults and governments could abide by these simple rules.

In a sense, the fundamentals of clinical trials are also elementary:

- Clearly define an important clinical research question
- Define the patient population
- Define a clinically meaningful endpoint for evaluating patient response
- Enroll every eligible patient
- Ensure that patients, caregivers, and evaluators are blinded to treatment
- Randomly assign study treatment regimens to enrolled patients
- Complete the treatment of every patient according to protocol
- Retain every patient in follow-up and complete every scheduled examination
- Include every enrolled patient in the analysis
- Use planned analyses to draw conclusions about study hypotheses

These principles are easy to state and about which to lecture in Clinical Trials 101. Follow them, and a quality clinical trial will result. However, they can be difficult to implement, and we sometimes lose sight of them when things get convoluted and busy. It is healthy to revisit them periodically.

Two bedrocks embedded in these fundamentals are randomization and the intention-to-treat principle.

Randomized clinical trials (RCTs) are the gold standard for evaluating and comparing benefits and harms of medical interventions. There are many tools in the clinical trial toolbox that contribute to making this so: randomization, blinding, control groups, prospective observation, the intention-to-treat principle, standardization of measurement and procedures, the trial protocol, prespecification of endpoints and hypotheses, protection of trial participants and trial integrity via independent monitoring by DSMBs, and trial registration. However, of all of these, randomization may be the most powerful tool.

Randomization ensures the expected balance of potentially confounding factors, measured or unmeasured, known or unknown, protecting us from our own knowledge limitations. It does not matter if there is an important factor that will not be discovered or measured for centuries ... there is still an expectation of balance. Such protections do not exist elsewhere.

Eligibility criteria for RCTs establish a well-defined population from which parameters are targeted for estimation and to which generalizability of results can be extrapolated so that subsequent evidence can be used to guide clinical decision-making. Once eligibility criteria are established defining a population of interest, randomization provides the foundation for valid statistical inference regarding population parameters such as treatment effects. This includes established theory for the control of error rates during hypothesis testing and correct coverage probabilities during confidence interval estimation of treatment effects.

However, valid statistical inference is not a birthright of RCTs. Advantages must be protected through sound design, conduct, analyses, and interpretation. In the absence of appropriate protections, the integrity of RCTs degenerates, becoming subject to the biases of observational studies. For example, the integrities of RCTs can be lost through the use of per protocol (PP) or ontreatment analyses, measuring the outcome at the end of treatment (confounding by time) rather than a fixed time from randomization, using post-randomization covariates, using adaptive randomization, using Bayesian designs that make assumptions regarding treatment effects, and using external, non-concurrent, or nonrandomized data. In PP analyses, for example, the expectation of balance of all confounding factors is no longer guaranteed, and thus the foundation for inference and control of error rates is no longer firmly rooted. Moreover, membership eligibility in a PP analysis set is based on post-treatment information, and thus not

directly helpful for selecting initial treatment, since it is unknown whether a candidate patient will ultimately be a member of the population defined by the PP analysis set.

The intention-to-treat principle (ITT) provides important protection for RCT integrity. The ITT approach evaluates the intention of treatment application. It analyzes all patients as randomized regardless of events that happen post-randomization, such as a deviation from protocol or poor adherence. ITT analyses preserve benefits provide by randomization, including valid statistical inference and generalizability necessary for clinical utility. The expectation of a balance of potentially confounding factors is retained, and resulting analyses apply to eligible candidate patients since it is known that they would be part of the analysis set upon which analyses are based.

Since ITT analysis provides the most realistic and unbiased answer to the more relevant question of clinical effectiveness, primary analyses should be conducted according to the ITT principle. The ITT principle is a widely accepted standard in RCTs given its importance as a pillar to the preservation of RCT integrity. Although often confined to efficacy analyses, it is also recommended for safety and benefit-risk analyses.

A Historical Clinical Trial: Diabetes Prevention Program (DPP)

In 1994, the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) of the NIH provided support for the Diabetes Prevention Program (DPP), a partially double-masked, placebo-controlled, randomized clinical trial designed to evaluate interventions for the prevention of diabetes in people with impaired glucose tolerance (IGT). Participants were randomized to: (i) the intensive lifestyle intervention (weight loss and increased calorie expenditure), (ii) metformin, or (iii) placebo. 3,234 trial participants from 27 US sites were randomized between 1996 and 1999, with 68% women and 45% from minority groups disproportionately affected by type 2 diabetes (T2D) enrolled. Trial participants were followed for 2-5 years with quarterly visits.

The Lifestyle intervention reduced the risk of developing diabetes by 58% over a 3-year period. The corresponding risk reduction for metformin was 31%. The lifestyle intervention was effective for men, women, and all participating racial and ethnic groups. The Program worked particularly well for participants ages 60 and older, lowering their chances of developing T2D by 71%. The results of DPP established the means for preventing

T2D and spurred a large YMCA DPP program offered in most states at a modest cost. The program was adopted and funded by the CDC (known as the National Diabetes Prevention Program [NDPP]) and the Centers for Medicare and Medicaid Services (CMS) (known as the Medicare Diabetes Prevention Program [MDPP]). Insurance coverage for these programs is available from Medicare based on projects that established costeffectiveness.

The primary manuscript for the DPP trial was published in the *New England Journal of Medicine* in 2002 and has since been cited more than 26,000 times, the most frequent citation in the diabetes prevention literature. The trial was selected as one of "Drazen's Dozen" by Jeffrey Drazen, as one of the 12 most impactful studies published during his 19-year tenure as the Editor-in-Chief of the *New England Journal of Medicine*. Study was further cited as an example of comparative effectiveness research from the Federal Coordinating Council for Comparative Effectiveness Research in a report to the United States President and Congress.

After trial completion, with support from the NIDDK, follow-up of the DPP cohort continued to assess the longterm development of diabetes and complications including retinopathy, microangiopathy, cancer, nerve damage, kidney disease, and cardiovascular disease. The effects of the original interventions, intensive lifestyle, and metformin persisted for at least 15 years. The DPP outcomes study cohort is the largest and longest-running study on lifestyle interventions for diabetes prevention in the world. Approximately 1700 original clinical trial participants were still being followed in 2025. More than 200 peer-reviewed publications have resulted from this study, with dozens more under review and in development.

In 2022, the National Institute of Aging (NIA) provided funding for the continued follow-up of the DPP cohort to address questions regarding the prevention, treatment, and management of Alzheimer's disease (AD) and Alzheimer's disease-related dementias (ADRD) in older adults with pre-diabetes or T2D. The vision is that given the detailed long-term follow-up of this large cohort coupled with future evaluations of brain health will provide similar impactful information about the prevention and scientific understanding of ADRD as the recent decades have accomplished for diabetes prevention and metabolic health.

Unfortunately, this important work may not be realized.

Unbefitting the life-saving contributions that the study has provided and can continue to provide, in March 2025 the DPP project team received notice that the grant award was being terminated effective immediately. No specific reason for the termination was given. Negotiations to better understand the rationale for the termination and pursuit of means to revive the study are ongoing. Despite the catastrophic news, the DPP research team is valiantly striving to fulfill the obligations to the thousands of patients and researchers who have contributed to the study for three decades and the American people who supported the research effort. All of us deserve answers to these important research questions.

A DSMB Story: Coronary Drug Project (CDP)

Although multi-arm trials became more popular during the COVID pandemic, the NIH has been supporting multiarm clinical trials for more than a half of a century.

Among the first major multi-arm trials, and also one of the first to have a DSMB, was the Coronary Drug Project (CDP). The CDP was a randomized, double-blind, placebocontrolled trial that evaluated five lipid-modifying agents (high-dose estrogen, low-dose estrogen, dextrothyroxine [D4T], clofibrate, and niacin) versus placebo for men 30 to 64 years of age with a documented myocardial infarction (MI) within the previous 3 months. The primary outcome was all-cause death. The CDP began enrolling 8341 trial participants from 53 clinical centers in 1965. Although the CDP had a steering committee of investigators to help manage the trial, it did not have a trial monitoring committee at the time of initiation. Instead, CDP investigators were informed of accumulating outcome data.

In 1967, a report commission by the U.S. National Heart Institute (NHI), the forerunner of the current National Heart, Lung, and Blood Institute (NHLBI), called the Greenburg Report named after Bernard Greenberg, chair of the committee that authored the report, was issued.

It stated that an Advisory Committee of senior scientists, experts in the field of study but not data-contributing participants in it, is essential to separate the clinical trial investigators, who have a stake in the trial outcome, from the clinical trial monitors who can remain more dispassionate.

With the issuance of the Greenberg Report in 1967, concern was expressed that CDP investigator knowledge

of early trends in mortality, morbidity, or side effects may tempt investigators to select treatments that appear to be best on the basis of early trends and to over-diagnose or report findings on the basis of early report summaries. In April 1968, a decision was made that outcome data would no longer be available to CDP trial investigators, and a safety monitoring committee was formed to review the data on a regular basis. The committee eventually recommended the termination of three of the five active treatment arms during the trial. The high-dose estrogen arm was discontinued in 1970 because of an increased incidence of cardiovascular events relative to the placebo. The D4T arm was discontinued in 1971 owing to increased mortality relative to the placebo. The low-dose estrogen arm was discontinued in 1973 for futility on the basis of an evaluation indicating that it would be nearly impossible to conclude benefits with trial continuation. The clofibrate arm had significant p-values (< 0.05) for benefit vs. placebo with respect to mortality on three occasions within the first 30 months of the trial. However, given the frequency of repeated evaluations and the multiplicity context of multi-arm trial, the DSMB was concerned that the false positive error rate was as high as 30 or 35%. Thus, the DSMB elected not to recommend stopping and further monitoring the effects. The clofibrate arm continued until planned trial completion with no difference in survival (25.5% for clofibrate vs. 25.4% for placebo). The niacin arm continued until the planned trial completion, but without a survival benefit.

American Association



An ASCO/AACR Workshop on METHODS IN CLINICAL CANCER RESEARCH

AAGR

July 20-25, 2025 | La Jolla, CA

ASCO AMERICAN SOCIETY OF CLINICAL ONCOLOGY

The ASCO/AACR Methods in Clinical Cancer Research Workshop is an intensive workshop in the essentials of effective clinical trial designs of therapeutic interventions in the treatment of cancer for clinical fellow and junior faculty clinical researchers in all oncology subspecialties, including radiation, surgical oncology, and radiology.

Affectionately known as the "Vail" Workshop due to its history in Vail, CO, the 2025 Workshop will be in a new location! The 2025 Workshop will be held in sunny La Jolla, California. The new location represents a less travel intensive venue than prior years, while still offering attendees an inviting space that is limited in distractions to promote a productive working environment.

Workshop Codirectors

Julie M. Vose, University of Nebraska Medical Center, Omaha, Nebraska Timothy A. Yap, The University of Texas MD Anderson Cancer Center, Houston, Texas Wendy B. London, Dana-Farber Cancer Institute and Boston Children's Hospital, Boston, Massachusetts

Workshop Overview

The Workshop supports participants through a weeklong educational program that covers clinical trial design, methodology, and implementation through a variety of large and small group formats to discuss the full spectrum of challenges and opportunities in clinical cancer research. The hallmark of the Workshop is the production of an institutional review board (IRB)-ready clinical trial protocol with informed consent documents from each participant.

The Workshop provides:

- Daily guidance and critiques on the development of a clinical trial protocol and informed consent documentation that participants will submit to their IRB.
- One-on-one mentoring from an experienced and diverse roster of faculty members actively engaged in clinical trials, including biostatisticians and patient advocacy groups.
- Advice and guidance on career development, both one-on-one and in small group settings
- Opportunities to forge strong and diverse networks among other Workshop participants and faculty.

For those protocols using agents from a pharmaceutical company that are not FDA-approved for the disease under study, a letter of commitment from the collaborating company stating that drug will be supplied for the proposed trial or a copy of the correspondence with the company suggesting their likely support of the trial IS STRONGLY ENCOURAGED. Priority will be given to applicants that have a clear letter of support that is uploaded with the application (preferably a letter of commitment, but at minimum, a letter of intent).

Questions? For questions about the submission of your application online, contact Asiyah Bhallo at <u>asiyah.bhallo@aacr.org</u>. For all other questions about the Workshop, including eligibility, please contact Dave Deming, PhD, at <u>dave.deming@aacr.org</u>.

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The Data Coordinating Center (DCC) is a component of the Clinical Trials Program in the Department of Biostatistics and Medical Informatics at the UW School of Medicine and Public Health. The DCC supports investigator-initiated NIH or industry-sponsored RCTs. We provide expertise in planning, conduct, monitoring, and analysis of clinical trials.

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Future SCT Meetings

Save the Dates - Upcoming SCT Annual Meetings



46th Annual Meeting May 18-21, 2025 Vancouver, BC



47th Annual Meeting May 17-20, 2026 Phoenix, AZ



48th Annual Meeting May 16-19, 2027 Chicago, IL

A Glimpse into Vancouver: Hollywood North and Dark Table

In filmmaking circles, Vancouver is part of "Hollywood North." Vancouver is second only to Los Angeles in TV production and third in feature film production, trailing only Los Angeles and New York in North America. A list of current productions shooting in British Columbia can be found here:

https://creativebc.com/provincial-film-commission/inproduction/

For those looking for a unique dining experience, consider Dark Table. When you arrive at this restaurant, you review the menu and place your order. There are a variety of dishes, including steak, fish, and lamb. A server who is blind or visually impaired then leads you to your table in a completely dark room. Cellphones or light-emitting devices are not allowed within the room to ensure all diners remain immersed in full darkness. The appetizers and desserts arrive as a surprise. You can opt for the surprise for the main course if desired. The concept of the Dark Table is that without the use of sight, other senses, such as taste and smell, are intensified, allowing enjoyment of the meal from a unique and new perspective.



46th Annual Meeting **Vancouver, Canada**